

Derby (Geo.)

GEOGRAPHICAL DISTRIBUTION OF CONSUMPTION IN MASSACHUSETTS.

The following pages from the 24th Registration Report, now in course of publication, are respectfully forwarded to the "Fellows of the Massachusetts Medical Society," in the hope that additional information may thus be obtained upon an interesting subject.

The undersigned, by whom they were prepared, will receive with many thanks any facts or professional opinions bearing upon the endemic or other causes of consumption which may be sent to his address.

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BOSTON, April 20, 1867. { *Surgeon Gen'l's Office*

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GEORGE DERBY, M. D.

The Geographical Distribution of Consumption has in previous years engaged the attention of the medical profession in Massachusetts, and has been a subject of frequent discussion in these reports. In 1854, Dr. Henry I. Bowditch addressed inquiries to the members of the Massachusetts Medical Society in every town of the State, asking replies to a series of questions of a broad and general character, as to the prevalence of consumption in their vicinity, the influence of soil, of the weather, of exposure to the various winds, of elevation above the sea, of proximity to the sea, of occupation of the people, &c., &c. The result of these inquiries was reported to the Massachusetts Medical Society in a very original and instructive communication in which the author presented evidence for his belief that moisture, and particularly *soil moisture*, was prominent among the causes of consumption in many localities, and that removal from such places to dry and elevated ground was a remedial and preventive measure of the highest importance.

Subsequently, the late Dr. A. A. Gould, published in the State Registration Reports for 1861 and 1862, an analysis of the United States census for 1850 and 1860, showing very clearly the greater

prevalence of consumption in the Northern than in the Southern States, and a regular series of declining percentages, corresponding with the degrees of latitude, from New England to the Gulf of Mexico. The subject is one which may well engage the attention of the people of Massachusetts, and if by continued investigation in these reports, additional light can be thrown upon the causes of this terrible destroyer of life, and means suggested by which it may be in any degree averted, time and labor will be well spent.

The last table, showing the greater prevalence of consumption in the seaboard than in the interior counties, is striking in its result, and yet inconclusive. If the inland counties were all distant from the sea, and the Atlantic counties all immediately exposed to its influence, it would prove much ; but this is not the case. The division is as good a one as could be made by *counties*, yet it is obvious that large portions of Bristol, Essex and Plymouth are not under sea influences, while populous portions of Norfolk and Middlesex really are. Moreover, we have reason to believe from Dr. Bowditch's investigations that certain localities of very limited extent supply a morbific influence, whatever it may be, which determines disease and death. It therefore seemed necessary to make smaller divisions of territory the subject of statistical comparison ; the smaller the better, provided the period included was sufficient to furnish significant numbers. With this view we have prepared the following table exhibiting the mortality from consumption in each town of the State for ten years, 1856-65, taking the census of 1860 as a basis for the calculation of percentages, and for the number living annually to one death by that disease. In presenting this table it seems proper to make certain statements, that all who refer to it may form their own estimate of its value, and of the possible errors it may include.

1st. It does not correspond with the official reports of deaths by consumption in the several years. The official report is 46,013 persons ; our tabulation, including the State Almshouses, 45,561 persons ; making a difference of 452, or about one per cent. of the whole. This discrepancy we can only explain by the general statement that the results are drawn from a careful examination of about seven thousand pages of original manuscript returns from the clerks of towns. These returns are not always clearly written, the nomenclature of disease is imperfectly under-

stood by the writers, and deaths are often credited to two distinct affections. For these reasons it does not seem possible that any two persons tabulating these records could arrive at precisely the same result. Our own examination shows a number slightly less than the official report in every year, and in almost every county for every year.

2d. Allowance may be made for incorrect diagnosis on the part of physicians. It is exceedingly probable that many deaths of children reported from consumption would have been more properly placed under some other heading. It is also probable that a certain number of cases reported as "disease of lungs," should have been called consumption. "Disease of lungs" is intended only to comprise such diseases of those organs as are not otherwise mentioned in the very full statistical nosology furnished to the towns. As, however, the whole number reported under this head in ten years was only 493, the error from this latter source cannot be very great.

3d. The correctness of the reports of town clerks may be questioned. We can say on this point that, although often not clearly written, they almost invariably show that they have been drawn up with much labor and care, and with a conscientious desire to give all the information in the writers' power. This is frequently attested by explanatory notes.

DEATHS by Consumption in each Town, 1856-65.

CITIES AND TOWNS.	Population, 1860.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten yrs.	Average No. of persons living each year to one Death by Consumption.	Order of Mortality.*
BARNSTABLE.						
Barnstable, . . .	5,129	494	112	22.4	458	42
Brewster, . . .	1,489	216	39	18.	382	76
Chatham, . . .	2,710	480	136	28.3	199	328
Dennis, . . .	3,662	589	122	20.7	300	183
Eastham, . . .	779	187	31	22.6	251	269
Falmouth, . . .	2,456	406	105	25.9	234	293
Harwich, . . .	3,423	648	155	23.9	221	309

* This column represents the order in which the towns appear with respect to mortality from Consumption, No. 1 being least, and No. 328 greatest.

CITIES AND TOWNS.	Population, 1860.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten years.	Average No. of persons living each year to one Death by Consumption.	Order of Mortality.
BARNSTABLE—<i>Con.</i>						
Orleans, . . .	1,678	347	89	25·6	189	330
Provincetown, . . .	3,206	690	124	18·	259	252
Sandwich, . . .	4,479	807	153	19·	293	199
Truro, . . .	1,583	306	47	15·4	337	116
Wellfleet, . . .	2,322	394	90	22·8	258	255
Yarmouth, . . .	2,752	459	73	15·9	377	80
BERKSHIRE.						
Adams, . . .	6,924	1,216	233	19·1	297	190
Alford, . . .	542	60	10	16·6	542	22
Becket, . . .	1,578	210	26	12·4	607	17
Cheshire, . . .	1,533	158	17	10·7	902	6
Clarksburg, . . .	420	58	4	7·	1,050	3
Dalton, . . .	1,243	192	35	18·2	355	98
Egremont, . . .	1,079	143	27	18·8	400	65
Florida, . . .	645	95	16	16·8	403	62
Great Barrington, . . .	3,871	647	106	16·3	365	87
Hancock, . . .	816	77	10	13·	816	7
Hinsdale, . . .	1,511	269	63	23·4	240	283
Lanesborough, . . .	1,308	195	29	14·9	451	44
Lee, . . .	4,420	805	133	16·5	332	124
Lenox, . . .	1,711	261	57	21·8	300	184
Monterey, . . .	758	136	19	13·9	399	66
Mount Washington, . . .	321	47	2	4·2	1,605	1
New Ashford, . . .	239	30	4	13·3	597	18
New Marlborough, . . .	1,782	324	41	12·6	435	49
Otis, . . .	998	165	17	10·3	587	19
Peru, . . .	499	55	11	20·	454	43
Pittsfield, . . .	8,045	1,472	233	15·8	345	108
Richmond, . . .	914	129	12	9·3	762	11
Sandisfield, . . .	1,585	211	38	18·	417	55
Savoy, . . .	904	137	30	21·9	301	180
Sheffield, . . .	2,621	515	93	18·1	282	221
Stockbridge, . . .	2,136	339	57	16·8	374	81

CITIES AND TOWNS.

		Population, 1850.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten years.	Average No. of persons living each year to one Death by Consumption.	Order of Mortality.
BERKSHIRE—Con.							
Tyningham, . . .		730	140	32	22.8	228	302
Washington, . . .		948	126	20	15.9	474	35
West Stockbridge, . .		1,589	264	39	14.8	407	59
Williamstown, . . .		2,611	427	67	15.7	390	72
Windsor, . . .		839	69	11	15.9	763	10
BRISTOL.							
Acushnet,* . . .		1,387	156	31	19.8	267	240
Attleborough, . . .		6,066	1,330	172	12.9	353	101
Berkley,		825	165	29	17.6	284	218
Dartmouth,		3,883	626	125	19.9	306	170
Dighton,		1,733	262	39	14.9	444	47
Easton,		3,067	560	122	21.8	251	270
Fairhaven,† . . .		3,118	568	103	18.1	302	177
Fall River,		14,026	3,718	734	19.7	191	329
Freetown,		1,521	293	61	20.8	250	271
Mansfield,		2,114	317	52	16.4	406	60
New Bedford, . . .		22,300	4,159	967	23.2	231	297
Norton,		1,848	293	52	17.7	355	99
Raynham,		1,746	318	77	24.2	227	305
Rehoboth,		1,932	373	75	20.1	257	261
Seekonk,		2,662	294	69	23.5	387	74
Somerset,		1,793	352	75	21.3	239	284
Swanzey,		1,430	188	55	29.3	260	251
Taunton,		15,376	2,886	608	21.1	253	265
Westport,		2,767	419	101	24.1	274	231
DUKES.							
Chilmark,		654	85	12	14.1	545	21
Edgartown,		2,118	278	40	14.4	529	23
Tisbury,		1,631	350	50	14.3	326	129

* Six years only.

† Included Acushnet four years.

CITIES AND TOWNS.			Population, 1860.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten yrs.	Average No. of persons living each year to one Death by Consumption.	Order of Mortality.
ESSEX.								
Amesbury, . . .	3,877	658	135	20·5	287	211		
Andover, . . .	4,765	904	206	22·8	231	298		
Beverly, . . .	6,154	1,093	253	23·2	243	279		
Boxford, . . .	1,020	140	29	20·7	352	102		
Bradford, . . .	1,688	271	55	20·3	307	169		
Danvers, . . .	5,110	928	196	21·7	261	249		
Essex, . . .	1,701	307	57	18·6	299	186		
Georgetown, . . .	2,075	323	91	28·1	228	303		
Gloucester, . . .	10,904	2,643	402	15·2	271	234		
Groveland, . . .	1,448	272	47	17·3	308	165		
Hamilton, . . .	789	149	29	19·4	272	233		
Haverhill, . . .	9,995	1,494	383	25·6	261	250		
Ipswich, . . .	3,300	546	119	21·8	277	228		
Lawrence, . . .	17,639	4,127	815	19·7	216	313		
Lynn, . . .	19,083	3,586	855	23·9	223	308		
Lynnfield, . . .	866	150	30	20·	289	206		
Manchester, . . .	1,698	332	70	21·1	243	280		
Marblehead, . . .	7,646	1,584	292	18·4	262	248		
Methuen, . . .	2,566	390	103	26·4	249	234		
Middleton, . . .	940	138	15	10·9	627	15		
Nahant, . . .	380	51	4	7·8	950	5		
Newbury, . . .	1,444	264	56	21·2	258	256		
Newburyport, . . .	13,401	2,153	463	21·5	290	202		
North Andover, . . .	2,343	364	78	21·4	300	185		
Rockport, . . .	3,237	659	157	23·8	206	323		
Rowley, . . .	1,278	247	41	16·6	312	156		
Salem, . . .	22,252	4,522	959	21·2	232	296		
Salisbury, . . .	3,310	656	160	24·4	207	322		
Saugus, . . .	2,024	342	63	18·4	321	138		
South Danvers, . . .	6,549	1,112	222	20·	295	195		
Swampscott, . . .	1,530	256	53	20·7	288	208		
Topsfield, . . .	1,292	204	35	17·1	369	85		

CITIES AND TOWNS.		Population, 1860.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten yrs.	Average No. of persons living each year to one Death by Consumption.	Order of Mortality.
ESSEX—Con.							
Wenham, . . .	1,105	170	59	34.7	187	331	
West Newbury, . .	2,202	374	104	27.8	212	316	
FRANKLIN.							
Ashfield, . . .	1,302	226	39	17.2	334	120	
Bernardston, . . .	968	165	32	19.4	802	178	
Buckland, . . .	1,702	344	43	12.5	396	70	
Charlemont, . . .	1,075	174	33	18.9	326	130	
Colrain, . . .	1,798	304	79	26.	228	304	
Conway, . . .	1,689	307	60	19.5	281	224	
Deerfield, . . .	3,073	579	95	16.4	323	137	
Erving, . . .	527	102	17	16.6	310	160	
Gill, . . .	683	108	22	20.4	310	161	
Greenfield, . . .	3,198	600	105	17.5	304	175	
Hawley, . . .	671	94	25	26.6	268	237	
Heath, . . .	661	111	14	12.6	472	37	
Leverett, . . .	964	190	40	21.1	241	282	
Leyden, . . .	606	108	12	11.1	505	30	
Monroe, . . .	236	29	2	6.9	1,180	2	
Montague, . . .	1,593	258	55	21.3	290	203	
New Salem, . . .	957	195	33	16.9	290	204	
Northfield, . . .	1,712	300	85	28.3	201	327	
Orange, . . .	1,622	306	64	20.9	253	266	
Rowe, . . .	619	84	8	9.5	774	9	
Shelburne, . . .	1,448	278	43	15.5	337	117	
Shutesbury, . . .	798	143	31	21.6	258	257	
Sunderland, . . .	839	163	30	18.4	280	225	
Warwick, . . .	932	165	27	16.4	345	109	
Wendell, . . .	704	113	19	16.8	371	83	
Whately, . . .	1,057	204	42	20.6	252	267	
HAMPDEN.							
Agawam, . . .	1,698	280	52	18.6	326	131	
Blandford, . . .	1,256	203	27	13.3	465	39	
Brimfield, . . .	1,363	273	53	19.4	257	262	

CITIES AND TOWNS.	Population, 1860.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten yrs.	Average No. of persons living each year to one Death by Consumption.	Order of Mortality.
HAMPDEN—Con.						
Chester, . . .	1,314	142	18	12.7	730	12
Chicopee, . . .	7,261	1,561	315	20.2	230	299
Granville, . . .	1,385	260	35	13.5	396	69
Holland, . . .	419	82	8	9.8	524	25
Holyoke, . . .	4,997	747	113	15.1	442	48
Longmeadow, . . .	1,376	271	52	19.2	265	242
Ludlow, . . .	1,174	190	40	21.1	293	200
Monson,* . . .	3,164	444	87	19.6	364	89
Montgomery, . . .	371	75	16	21.3	232	295
Palmer, . . .	4,082	464	109	23.5	374	82
Russell, . . .	605	109	30	27.5	202	326
Southwick, . . .	1,188	207	40	19.3	297	191
Springfield, . . .	15,199	3,589	565	15.7	269	236
Tolland, . . .	596	91	15	16.5	397	68
Wales, . . .	677	115	33	28.7	205	324
Westfield, . . .	5,055	1,106	199	18.	254	264
West Springfield, . . .	2,105	431	49	11.4	430	52
Wilbraham, . . .	2,081	378	53	14.	393	71
HAMPSHIRE.						
Amherst, . . .	3,206	563	104	18.5	308	167
Belchertown, . . .	2,709	458	101	22.1	268	238
Chesterfield, . . .	897	157	43	27.4	209	317
Cummington, . . .	1,085	166	37	22.3	293	194
Easthampton, . . .	1,916	377	37	9.8	518	27
Enfield, . . .	1,025	233	49	21.	209	318
Goshen, . . .	439	89	14	15.7	313	155
Granby, . . .	907	164	25	15.3	363	90
Greenwich, . . .	699	162	28	17.2	250	272
Hadley, . . .	2,105	464	93	20.	226	307
Hatfield, . . .	1,337	254	47	18.5	285	217
Huntington, . . .	1,216	154	33	21.4	368	86
Middlefield, . . .	748	96	18	18.7	416	56

* Almshouse not included.

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HAMPSHIRE—Con.						
Northampton, . . .	6,788	1,430	269	18.8	252	268
Pelham, . . .	748	97	25	25.7	299	187
Plainfield, . . .	639	112	17	15.2	370	84
Prescott, . . .	611	79	17	21.5	360	92
South Hadley, . . .	2,277	393	67	17.1	340	115
Southampton, . . .	1,130	276	40	14.5	282	222
Ware, . . .	3,597	810	168	20.7	214	314
Westhampton, . . .	608	124	19	15.2	320	139
Williamsburg, . . .	2,095	362	54	14.9	388	73
Worthington, . . .	1,041	154	30	19.5	347	106
MIDDLESEX.						
Acton, . . .	1,726	310	48	15.5	359	93
Ashby, . . .	1,091	237	51	21.5	214	315
Ashland, . . .	1,554	312	48	15.4	324	135
Bedford, . . .	843	158	26	16.5	324	136
Belmont,* . . .	1,198	111	13	11.7	645	14
Billerica, . . .	1,776	271	50	18.5	355	100
Boxborough, . . .	403	70	14	20.	288	210
Brighton, . . .	3,375	476	68	14.3	493	32
Burlington, . . .	606	91	12	13.2	505	31
Cambridge, . . .	26,060	5,179	915	17.6	284	219
Carlisle, . . .	621	122	17	13.9	365	83
Charlestown, . . .	25,065	5,069	1,066	21.	235	291
Chelmsford, . . .	2,291	328	34	10.3	673	13
Concord, . . .	2,246	335	72	21.5	312	157
Dracut, . . .	1,881	291	62	21.3	303	176
Dunstable, . . .	487	86	17	19.7	286	215
Framingham, . . .	4,227	693	177	25.5	239	285
Groton, . . .	3,193	608	124	20.4	258	258
Holliston, . . .	3,339	384	88	22.9	379	77
Hopkinton, . . .	4,340	529	113	21.3	384	75
Lexington, . . .	2,329	427	74	17.3	315	151

* Seven years only.

CITIES AND TOWNS.	Population, 1850.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten yrs.	Average No. of persons living each year to one death by Consumption.	Order of Mortality.
MIDDLESEX—<i>Con.</i>						
Lincoln, . . .	718	104	14	13·4	513	28
Littleton, . . .	1,063	217	38	17·5	280	226
Lowell, . . .	36,827	6,961	1,554	22·3	237	289
Malden, . . .	5,865	867	156	17·1	398	67
Marlborough, . . .	5,911	868	165	19·	357	95
Medford, . . .	4,842	712	172	24·2	282	223
Melrose, . . .	2,532	400	63	15·7	402	63
Natick, . . .	5,515	894	177	10·8	311	159
Newton, . . .	8,382	980	193	19·7	434	50
North Reading, . .	1,203	166	37	22·3	325	134
Pepperell, . . .	1,895	354	86	24·3	220	810
Reading, . . .	2,662	471	98	20·8	272	232
Sherborn, . . .	1,129	136	26	19·1	434	51
Shirley, . . .	1,468	251	36	14·3	408	58
Somerville, . . .	8,025	1,396	270	19·3	297	192
South Reading, . .	3,207	493	98	19·9	327	128
Stoneham, . . .	3,206	591	109	18·4	294	198
Stow, . . .	1,641	264	52	19·7	315	152
Sudbury, . . .	1,691	251	49	19·5	345	110
Tewksbury,* . .	1,744	157	33	21·	528	24
Townsend, . . .	2,005	450	71	15·8	283	220
Tyngsborough, . .	626	122	30	24·6	209	319
Waltham, . . .	6,397	1,148	205	17·8	312	158
Watertown, . . .	3,270	528	98	18·5	334	121
Wayland, . . .	1,188	180	34	18·9	350	104
West Cambridge, . .	2,681	455	71	15·6	378	78
Westford, . . .	1,624	302	47	15·6	345	111
Weston, . . .	1,243	141	16	11·3	777	8
Wilmington, . . .	919	151	32	21·2	287	212
Winchester, . . .	1,937	229	41	17·9	472	38
Woburn, . . .	6,287	1,171	206	17·6	305	174

* Almshouse not included.

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NANTUCKET.						
Nantucket, . . .	6,094	1,153	225	19.5	271	235
NORFOLK.						
Bellingham, . . .	1,313	194	53	27.3	248	275
Braintree, . . .	3,468	550	112	20.3	309	162
Brookline, . . .	5,164	709	116	16.3	445	46
Canton, . . .	3,242	631	96	15.2	337	118
Cohasset, . . .	1,953	351	58	16.5	336	119
Dedham, . . .	6,330	1,233	215	17.4	294	197
Dorchester, . . .	9,769	1,639	284	17.3	344	113
Dover, . . .	679	96	14	14.6	485	33
Foxborough, . . .	2,879	401	69	17.2	417	54
Franklin, . . .	2,172	321	65	20.2	334	123
Medfield, . . .	1,082	158	34	21.5	318	143
Medway, . . .	3,105	610	121	19.8	264	245
Milton, . . .	2,669	469	84	17.9	318	144
Needham, . . .	2,658	400	88	22.	302	179
Quincy, . . .	6,778	1,129	237	21.	286	216
Randolph, . . .	5,760	1,082	312	28.8	184	333
Roxbury, . . .	25,137	5,082	764	15.2	329	126
Sharon, . . .	1,377	234	38	16.2	362	91
Stoughton, . . .	4,830	842	182	21.6	265	243
Walpole, . . .	2,037	327	66	20.1	309	163
West Roxbury, . .	6,310	658	112	17.	563	20
Weymouth, . . .	7,742	1,819	233	17.6	332	125
Wrentham, . . .	3,406	493	84	17.	405	61
PLYMOUTH.						
Abington, . . .	8,527	1,307	308	23.6	268	239
Bridgewater*, . .	3,761	559	108	19.3	348	105
Carver, . . .	1,186	205	46	22.4	258	250
Duxbury, . . .	2,597	463	82	17.7	317	146
E. Bridgewater, . .	3,207	552	134	24.3	239	286
Halifax, . . .	766	107	32	29.9	239	287

* Almshouse not included.

CITIES AND TOWNS.	Population 1860.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten years.	Average No. of persons living each year to one Death by Consumption.	Order of Mortality.
PLYMOUTH—Con.						
Hanover, . . .	1,565	306	71	23.2	220	311
Hanson, . . .	1,245	215	55	25.6	226	307
Hingham, . . .	4,851	810	164	20.2	265	244
Hull, . . .	285	88	6	6.8	475	34
Kingston, . . .	1,655	265	52	19.6	318	145
Lakeville, . . .	1,160	217	45	20.7	258	260
Marion, . . .	918	156	37	23.7	248	276
Marshfield, . . .	1,870	295	56	19.	334	122
Mattapoisett, . . .	1,483	297	32	10.8	463	41
Middleborough, . . .	4,553	707	110	14.3	414	57
N. Bridgewater, . . .	6,584	1,180	249	21.1	264	216
Pembroke, . . .	1,524	305	48	15.7	317	147
Plymouth, . . .	6,272	1,164	240	20.6	261	251
Plympton, . . .	994	175	19	10.8	523	26
Rochester, . . .	1,232	176	36	20.5	342	114
Scituate, . . .	2,927	393	74	18.8	301	181
South Scituate, . . .	1,774	302	59	19.5	301	182
Wareham, . . .	3,186	413	89	20.1	358	94
W. Bridgewater, . . .	1,846	326	67	20.6	275	230
SUFFOLK.						
Boston, . . .	177,840	42,502	7,767	18.2	229	300
Chelsea, . . .	13,395	2,345	434	18.5	309	161
North Chelsea, . . .	921	76	9	11.8	1,023	4
Winthrop, . . .	544	57	17	29.8	320	140
WORCESTER.						
Ashburnham, . . .	2,108	376	71	18.9	297	193
Athol, . . .	2,604	456	69	15.1	377	79
Auburn, . . .	914	112	15	13.4	609	16
Barre, . . .	2,973	556	97	17.4	306	171
Berlin, . . .	1,106	184	32	17.4	346	107
Blackstone, . . .	5,453	899	178	19.8	306	172
Bolton, . . .	1,348	250	45	18.	299	188
Boylston, . . .	929	132	20	15.1	464	40

CITIES AND TOWNS.

	Population, 1890.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to all causes in ten years.	Average No. of persons living each year to one death by Consumption.	Order of Mortality.
WORCESTER—Con.						
Brookfield, . . .	2,276	419	88	21·	259	253
Charlton, . . .	2,047	339	88	26·	233	294
Clinton, . . .	3,859	765	125	16·4	308	168
Dana, . . .	876	162	35	21·6	250	273
Douglas, . . .	2,442	331	85	25·7	287	213
Dudley, . . .	1,736	321	58	18·1	299	189
Fitchburg, . . .	7,805	1,531	255	16·6	306	173
Gardner, . . .	2,646	410	66	16·1	401	64
Grafton, . . .	4,317	700	121	17·3	356	97
Hardwick, . . .	1,521	263	53	20·2	287	214
Harvard, . . .	1,507	274	48	17·5	314	153
Holden, . . .	1,945	360	79	21·9	246	278
Hubbardston, . . .	1,621	308	55	17·8	295	196
Lancaster, . . .	1,932	298	61	20·4	317	148
Leicester, . . .	2,748	466	86	18·5	320	141
Leominster, . . .	3,522	535	122	22·8	289	207
Lunenburg, . . .	1,212	250	55	22·	220	312
Mendon, . . .	1,351	213	53	24·9	255	263
Milford, . . .	9,132	1,989	389	19·6	235	292
Millbury, . . .	3,296	670	158	23·6	208	321
New Braintree, . .	805	114	17	14·9	473	36
Northborough, . .	1,565	255	48	18·8	326	132
Northbridge, . .	2,633	366	62	16·9	425	53
North Brookfield, .	2,760	502	99	19·7	279	227
Oakham, . . .	959	188	47	25·	204	325
Oxford, . . .	3,034	571	127	22·2	239	288
Paxton, . . .	725	152	30	19·7	242	281
Petersham, . . .	1,465	220	55	25·	266	241
Phillipston, . . .	764	149	29	19·5	263	247
Princeton, . . .	1,201	224	38	17·	316	149
Royalston, . . .	1,486	287	71	24·7	209	320
Rutland, . . .	1,076	226	34	15·	316	150
Shrewsbury, . . .	1,558	386	68	17·6	229	301

CITIES AND TOWNS.	Population, 1860.	Deaths from all causes in ten years.	Deaths from Consumption in ten years.	Percentage of Deaths by Consumption to Deaths from all causes in ten years.	Average No. of persons living each year to one death by Consumption.	Order of Mortality.
WORCESTER—Con.						
Southborough, . . .	1,854	282	67	23.8	277	229
Southbridge, . . .	3,575	695	123	17.7	291	201
Spencer, . . .	2,777	512	79	15.4	351	103
Sterling, . . .	1,881	313	37	11.8	508	29
Sturbridge, . . .	2,291	362	73	20.2	314	154
Sutton, . . .	2,676	465	84	18.1	319	142
Templeton, . . .	2,816	466	79	17.	356	96
Upton, . . .	1,986	363	107	29.5	186	332
Uxbridge, . . .	3,133	476	108	22.7	290	205
Warren, . . .	2,107	349	64	18.3	329	127
Webster, . . .	2,912	576	123	21.3	237	290
Westborough, . . .	2,913	500	101	20.2	288	209
West Boylston, . . .	2,509	397	56	14.1	446	45
West Brookfield, . . .	1,548	298	50	16.8	310	133
Westminster, . . .	1,840	318	71	22.3	259	254
Winchendon, . . .	2,624	409	76	18.6	345	112
Worcester, . . .	24,960	6,016	1,011	16.8	247	277

To the above list of towns reporting 44,467 deaths by consumption add,—

Monson Almshouse,	106
Tewksbury Almshouse,	327
Bridgewater Almshouse,	550
Northampton Insane Asylum, (3 years,)	26
Pawtucket, before transfer to Rhode Island,	82
Gay Head and Gosnold, (1 year,)	3

And we have as total deaths from Consumption, in ten years, according to the original records, 45,561.

The following table is intended to place before the eye two groups of towns in the order which they should occupy as having the least and the greatest mortality from consumption. Towns having less than one thousand inhabitants are not here recorded.

<i>Least Mortality.</i>	<i>Greatest Mortality.</i>
Cheshire,	Randolph,
Weston,	Upton,
Chester,	Wenham,
Chelmsford,	Orleans,
Belmont,	Fall River,
Becket,	Chatham,
West Roxbury,	Northfield,
Edgartown,	Rockport,
Tewksbury,	Salisbury,
Easthampton,	Millbury,
Sterling,	Royalston,
Brighton,	West Newbury,
Winchester,	Ware,
Mattapoisett,	Ashby,
Blandford,	Lawrence,
Barnstable,	Hanover,
Lanesborough,	Lunenburg,
Brookline,	Pepperell,
Holyoke,	Harwich,
Dighton,	Lynn,
New Marlborough,	Hadley,
Newton,	Hanson,
West Springfield,	Raynham,
Northbridge,	Shrewsbury,
Foxborough.	Georgetown.

In the first list of twenty-five towns containing 67,289 inhabitants, there were in ten years 1,380 deaths from consumption. In the second list of twenty-five towns containing 100,741 inhabitants, there were in ten years 4,812 deaths from consumption. In the first list one death occurred annually to 487 persons living. In the second list one death occurred annually to 209 persons living.

This difference it will be seen is exceedingly great. The results seem equally remarkable when single towns are compared; as for instance Northbridge and Upton, adjoining towns in Worcester County, of nearly equal size and with a similar population, or Weston and Wenham, not very distant from each other, and both occupied by farmers. We have earnestly endeavored to discover

in what respects each of the above groups of towns has common characteristics, and to find broad distinctions separating one group from the other. That we have failed to satisfy our own mind is perhaps not surprising, since the solution of such a question requires an intimate knowledge of a multitude of facts which we do not possess. That causes are in existence for the results above given seems certain, and we commend the comparison of towns and districts to observers throughout the State, confident that what is now obscure will, at some future day, which we hope and believe to be not distant, be apparent to every one. One thing we cannot help regarding as proved by the foregoing analysis. Consumption is very unequally distributed throughout Massachusetts. This conclusion seems unavoidable unless we reject all death returns as valueless, since the disease in question is so marked and positive in its later signs that it seems impossible that it should be mistaken for anything else by observers of average intelligence.

An examination of the reported deaths from consumption in Massachusetts in three periods of five years shows that this disease is becoming less destructive.

MORTALITY from Consumption in Three Periods of Five Years.

	1851-55.	1856-60.	1861-65.
Whole number,	22,091	23,161	22,852
Percentage to all deaths,	22.62	21.46	17.54

If it should be objected to this view that the last period was one of war, when the mortality was excessive, thereby reducing the percentage of any disease, attention may be called to the fact that the whole number of cases in these last five years is only 761 (a little more than three per cent.) greater than in the first five years, and actually 301 less than in the middle five years, in spite of the increase of population within these periods.

The cause of this diminished mortality is to be found chiefly in the advance of medical science. The intimate nature of the disease is better understood. Formerly, a patient with consumption was regarded as affected with a local disease of an inflamma-

tory character, and was kept in-doors, carefully protected from the air, and imperfectly nourished. In the light of the present day the disease is understood to be of a general and not of a local character, and to require the utmost amount of fresh and *open* air, daily moderate exercise out of doors, except in very severe and stormy weather, and as much nourishing and stimulating food as can possibly be digested. By such means life is prolonged, and in some instances the disease itself arrested.

The prevention of consumption in those disposed to it by inheritance or otherwise, is in a still greater degree within our power. The free admission of sunlight to our dwellings, and an abundant supply of pure air both by day and by night, are real protections against consumption ; and we think it the duty of all who believe these to be established facts, to proclaim and publish them in every possible way.

In this connection we venture to make another observation, which is, that one of the most important discoveries of modern times in its influence upon human life and happiness remains yet to be made in some simple and easily adjusted contrivance by which the fitness, or the degree of unfitness for respiration, of the air of buildings of all sorts, may be measured. The temperature we know, the degree of moisture is almost equally attainable, but the measure of *purity*, of freedom from the products of respiration and of the combustion of various kinds of fuel, and other noxious material with which the air we breathe is constantly mixed, these we have at present no means of indicating with any approach to accuracy. The temporary mental impressions made upon those who feed their lungs upon unwholesome air are utterly untrustworthy, but the results are often distinctly seen in subsequent disease, and especially consumption.

